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International Application No.: PCT/CN03/000670
International Filing Date: August 13, 2003
Preliminary Amendment Accompanying
Substitute Specification

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for collecting network usage data of a user, comprising the following steps:

(1) an access device authenticating and authorizing the user, and an Authentication, Authorization and Accounting Server (hereinafter referred to as AAA server) recording the user's network resource information authenticated and authorized;

(2) a router, during network access, recording network usage information, and sending the network usage information to a NetStream Collector (hereinafter referred to as NSC) with User Datagram Protocol messages;

(3) the NSC aggregating the collected network usage information; and

(4) the association analysis server performing real-time association analysis for the aggregated network usage information and the user's network resource information uploaded from the AAA server to obtain detailed network usage data of the user.

2. (Currently Amended) The method according to claim 1, wherein the access device in step (1) is one of a LAN switch, an access server, or and an IP phone gateway.

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3. (Currently Amended) The method according to claim 1, wherein step (1) in which the access device authenticates and authorizes the user and the AAA server records the user's network resource information comprises the following steps:

(1) the access device sending the user's authentication and authorization data to the AAA server;

(2) the AAA server analyzing and recording the user's authentication and authorization data, and sending control information of the network access permission to the access device;

(3) the access device allocating resources to the user and sending the user's network resource information to the AAA server, which records the user's network resource information; and

(4) the AAA server forwarding the user's network resource information to the association analysis server in real time.

4. (Currently Amended) The method according to claim 3, wherein in step (3), the resources allocated by the access device to the user comprise: an IP address, and a start time and a stop time of network access.

5. (Currently Amended) The method according to claim 3, wherein in step (3), the resources allocated by the access device to the user comprise: an IP address, a start time and a stop time of network access, and bandwidth.

6. (Currently Amended) The method according to claim 3, wherein in step (3), the user's network resource information recorded by the AAA server comprises: a user's account number, a start time and a stop time of network access, an IP address, a network access location, and a service attribute.

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7. (Currently Amended) The method according to claim 1, wherein in step (2), the network usage information recorded by the router comprises: a source IP address, a destination IP address, a source port number, a destination port number, a number of bytes, and a timestamp.

8. (Currently Amended) The method according to claim 1, wherein the association analysis in step (4) comprises: matching the IP address and ~~the~~a start time and a stop time of network access in the user's network resource information to the IP address and the timestamp in the network usage information, to determine the user corresponding to the network usage information.